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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/085,669	02/27/2002	Adrianus Alphonsus Jozef Buijsman	NL010158	8647

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

SCHILLINGER, LAURA M

ART UNIT	PAPER NUMBER
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2813

DATE MAILED: 03/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

K.S.

Office Action Summary	Application No.		Applicant(s)	
	10/085,669		BUIJSMAN ET AL.	
	Examiner		Art Unit	
	Laura M Schillinger		2813	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 12-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6 and 9-11 is/are rejected.
- 7) ☐ Claim(s) 5, 7 and 8 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Objections

Allowable Subject Matter

Claims 5, 7-8 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 1-3 and 9-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamamoto et al ('366).

In reference to claim 1, Yamamoto et al teaches a module comprising a substrate with a side (Fig.1 (1), a semiconductor device (Fig.1 (7), a shield of an electrically conducting material (Fig.7A (13)), and

an antenna mounted on the substrate (Fig. 1 and 7A (4)), said shield (13) being present between the antenna (4) and the semiconductor device (7) (Col. 10, lines: 20-25), wherein the shield (13) and the antenna (4) are present substantially at the same side of the substrate as is the semiconductor device (Fig. 7A- top side).

In reference to claim 2, Yamauchi teaches characterized in that the shield is connected to the antenna by a support means (Fig. 7B (12)).

In reference to claim 3, Yamauchi teaches characterized in that the shield (13) and the antenna (4) are metal plates (Col. 10, lines: 24-27 and Col. 9, lines: 60-65) which each comprise a first (first 12), second (3) and third portions (second 12) – the second portion (3) adjoining the first and third (12) and being oriented parallel to the substrate (Fig. 7B), while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate (Fig. 7A/B(12)).

In reference to claim 9, Yamauchi teaches in that the support means comprises a first, second and third portions – the second portion adjoining the first and third and being oriented parallel to the substrate, while at least one of the first and third portions is connected with electrical conduction to electrical conductors at one of the sides of the substrate, while the first and third portions extend up to the substrate (Fig. 7A/B (12) and Col. 9, lines: 60-65)

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In reference to claim 10, Yamauchi teaches the device of claim 1 (Col.21, lines: 10-20).

In reference to claim 11, Yamauchi teaches wherein a carrier is present on the module and at least one component emits radiation during operation and the height of the module is greater than the component (Col.5, lines: 20-30).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yamauchi et al ('672) as applied to claims above, and further in view of Nagata et al ('173).

In reference to claim 4, Yamamoto fails to teach in that the support means comprises a rubbery, electrically insulating material.

However, Nagata teaches a similar structure wherein antenna (7) is supported by a dielectric in order to improve transmission characteristics through concentrating the electromagnetic field (Col.s 9-10, lines: 10-50).

It would have been obvious to one of ordinary skill in the art to modify Yamamoto's teachings to include an interfacial dielectric in order improve transmission characteristics because interference could develop between Yamauchi's layers 8a and 7 because an electromagnetic signal would be transferred through them.

In reference to claim 6, Yamamoto fails to teach wherein the third portion of the antenna has teeth to connect to the sides of the substrate.

However, Yamauchi teaches in that the third portion of the antenna is provided with teeth which are connected to the electrical conductors at one of the sides of the substrate (Fig.1 (8)).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Yamamoto's teachings to further include an antenna with teeth connectors in order to provide additional stability in the antenna's connection.

Allowable Subject Matter

The following is a statement of reasons for the indication of allowable subject matter:

Yamamoto teaches the limitations of claims 1 and 3, however fails to teach the limitation of claim 5 which recites "that the support means is a strip having a first and second end which is undetachably connected at its first end to the metal plate of the antenna and is fastened at its second end to the shield". Yamamoto's support structure does not connect to the metal plate of

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the antenna, rather it connects to the substrate. Mathews et al ('649 teaches using a support for a shield which is then connected to the metal plate of an antenna (Col.6, lines: 40-65), however fails to qualify as prior art due to Applicant's foreign priority date. Consequently, Applicant's claims 5, 7, 8 all contain this allowable subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura M Schillinger whose telephone number is (571) 272-1697. The examiner can normally be reached on M-T, R-F 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl W Whitehead, Jr. can be reached on (571) 272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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